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The importance of addressing stress in parents of hearing impaired children

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**THE IMPORTANCE OF ADDRESSING STRESS
IN PARENTS OF HEARING IMPAIRED CHILDREN**

by

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**An Independent Study
submitted in partial fulfillment of the requirements for the
degree of:**

Master of Science in Deaf Education

**Washington University School of Medicine
Program in Audiology and Communication Sciences**

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**Approved by:
Mary Shortal, M.S., Independent Study Advisor**

Abstract: The focus of this study was to provide a summary of the existing literature concerning parental stress. The goal of highlighting factors that contribute to increased stress levels and the effects of stress on parents and children was to provide deaf educators with an understanding of parental stress and insight into the need for programs that minimize stress.

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ABBREVIATIONS

IEP:	Individualized Education Plan
PSI:	Parenting Stress Index
UNHS:	Universal Newborn Hearing Screening

Introduction

The field of deaf education has been rapidly changing with the push for early identification and the advent of universal newborn hearing screening (UNHS). Today, many children are being identified with a hearing loss days after birth. This has changed the way in which parents cope with the diagnosis of a hearing loss and the emotions that arise from the diagnosis (Kurtzer-White & Luterman, 2003). Parents are thrust into facing the often unfamiliar territory of managing a hearing impairment early in the child's life without any emotional preparation. This has caused some parents to feel pressured into making highly stressful decisions about amplification and education very early in the child's life. Many parents have had little time to enjoy their child and establish a bond before they learn that their child is deaf or hard of hearing. The vast array of emotions and stress experienced by parents can have an impact on the child diagnosed with a hearing loss. It is important that educators and interventionist are aware of the repercussions of parental stress, not only during the child's infancy, but also throughout the child's life (Koester & Meadow-Orlans, 1990). Addressing parental stress and emotions early in the diagnosis process, as well as providing continued support may decrease the effects parental stress can have on the child who is deaf or hard of hearing and the family.

The focus of this independent study is to provide a summary of the existing literature on the emotions, particularly stress, experienced by hearing parents of children who are deaf or hard of hearing. The topic of parental stress including factors that contribute to increased stress levels will be explored. To better understand parental stress, the grief cycle and emotions experienced by parents of children who are deaf or hard of hearing will also be discussed. The parents' ability to cope with their emotions can greatly influence the child, thus the impact parental stress

has on the child will be evident. Through early intervention programs and continued support provided to parents, the effects of parental stress can be minimized. The goal of the information presented is to provide deaf educators with an understanding of parental stress and insight into the need to address this issue.

Understanding Parental Stress

Stress is experienced by all people throughout a lifetime. Pipp-Siegel, Sedey, & Yoshinaga-Itano (2002) defined stress as “a physiological, cognitive, emotional strain or tension.” Stress may often be recognized as the consequence of a crisis; however, it also manifests itself as a long-term part of some people’s lives. Stress can accumulate over time and may require intervention (Lederberg & Golbach, 2002). One type of stress that can become long-term is that which people feel as a result of parenting a child. This type of stress is critical to understand due to the link between negative parent and child outcomes that can result. Stress is a complex emotion that is influenced by many factors, thus several domains are used to analyze it (Pipp-Siegel et al., 2002).

Stress can be viewed as having many different domains. These domains, explained by Abidin (1995), include factors inherent in the child, factors inherent in the parent, and/or factors related to the parent-child interaction. The separation of these domains draws attention to the fact that parents and children are individuals influenced by different variables (Abidin, 1995). When examining the parent-child interaction, it is looked at separate from the characteristics of either the parent or the child; however, it is recognized that individual characteristics of those involved can influence the interaction (Pipp-Siegel et al., 2002).

When examining the factors that affect a parent, one would be concerned with any variable that would impact the person’s ability to parent a child. This may include illnesses such

as depression and anxiety that can stem from stress. As a result, the parenting role may be influenced which affects attachment, competence, and the parent's health and well-being (Lederberg & Golbach, 2002). Factors that concern the child and have an impact on his or her stress level would include different types of negative behaviors such as defiance or a lack of compliance (Pipp-Siegel et al., 2002). These socioemotional problems may display themselves within a child's behavior or emotions. Stress in a parent-child interaction is characterized by a strain within the interaction that affects attachment. This domain identifies the quality of attachment that reveals whether or not the parent-child bond is compromised (Abidin, 1995). The different domains which describe parental stress reveal that not only is stress complex, but it is also extremely influential in the lives of parents and their children. Thus, it is crucial parental stress be examined due to the vast number of negative outcomes it can cause both parents and children (Pipp-Siegel et al., 2002).

Parenting Stress Index

Parental stress is extremely complex and many variables can affect a parent's stress levels. Research shows that many hearing parents including those of children who are deaf or hard of hearing exhibit high levels of stress, which can influence the parent, child, and the parent-child interaction (Lederberg & Golbach, 2002; Quittner, Glueckauf, & Jackson, 1990). Thus, to better understand the effects of parental stress, a tool such as The Parenting Stress Index (PSI) can be used to measure stress (Abidin, 1995). By understanding the domains and subscales of the PSI, one can better grasp the complexity and importance of factors affecting parental stress.

The PSI is a screening and diagnostic assessment questionnaire that is widely used to measure parental stress in research (Lederberg & Golbach, 2002). The self-report questionnaire

pinpoints sources of stress and dysfunction in parent-child relationships. Parents rate items on 5-point Likert scales which then yield scores reflecting the amount of child-related and parent-related stress. The Child Domain is composed of six subscales that include: Acceptability, Adaptability, Demandingness, Moodiness, Distractibility/Hyperactivity of the child, as well as the degree to which the Child Reinforces Parent. The Parent domain contains seven subscales which measure: Depression, Parental Attachment, Restrictions of Role, Parental Sense of Competence in the Parenting Role, Social Isolation, Relations with Spouse, and Parental Health. A short form of the PSI is also available which is composed of 36 items versus the 101 found on the full-length PSI. It includes subscales assessing Parental Distress, Parent-Child Dysfunctional Interaction, and the Difficult Child. Both forms identify potential family problems researchers and other professionals use in identifying factors that contribute to evaluated stress. The PSI is also beneficial in aiding planning for intervention and treatment of individuals in need (Abidin, 1995).

Stress in Parents of Children with Hearing Loss

Research shows that parental stress negatively influences child development including the interactions parents have with their children (Hintermair, 2006; Lederberg & Golbach, 2002; Quittner et al., 1990). Thus, it is important to be aware of individuals who may experience greater amounts of parental stress. Many factors in a person's life can affect their stress levels. One such factor is having a child with a disability. There has been a large amount of research related to parental stress including whether or not parents of children with hearing loss have increased parenting stress (Pipp-Siegel et al., 2002). In their study, Pipp-Siegel et al. (2002) found that hearing mothers of deaf or hard of hearing children did not report stress levels that were higher than mothers of hearing children. However, they did point out that although there

was a lack of evidence to support that mothers of hearing impaired children exhibited more stress than mothers of hearing children, as many as 16% of mothers experienced clinically significant levels of stress that would warrant professional referral. Quittner, Glueckauf, & Jackson (1990) found that parents of deaf children did in fact feel more stressed than parents of hearing children. For some families, stress levels may only increase in those areas related to the child's deafness (Koester & Meadow-Orlans, 1990). As these studies show, a discrepancy about whether or not a child with a hearing impairment causes additional stress for parents is present within the research. Lederberg & Golbach (2002) point out that this inconsistency between past and recent research may confirm that a high level of stress for mothers of infants and preschoolers who are deaf or hard of hearing may be avoidable. They call attention to the effects certain factors, such as the age of the children studied and the educational support the parent received while the child was an infant and toddler, as some possible reasons for the incongruence.

Factors Affecting Parental Stress

Certain factors can increase the amount of stress hearing parents experience while raising a child with a hearing loss. By exploring the factors, one can better understand the complexities of parental stress and the influence certain factors have on stress levels. It is important that professionals are aware of the negative influence these factors can have on the level of parental stress so they, in turn, can provide the appropriate intervention and support.

Pipp-Siegel et al. (2002) reported that demographic characteristics of the child, factors related to the child's hearing loss, as well as characteristics and perceptions of the mother increase a parent's stress level. The child's hearing loss, including age of identification and degree of loss, can have an effect on a hearing parent's stress level. In addition, other factors such as the presence of additional disabilities, and those factors related to the child's parents such

as family income, parenting hassles, and support can also negatively impact parental stress levels (Pipp-Siegel et al., 2002).

The Child's Age

When looking at characteristics of the child, the first examined is the child's chronological age. In a study done by Konstantareas & Lampropoulou (1995), it was shown that maternal stress increased with the child's age when other variables were removed. Similarly, Pipp-Siegel et al. (2002) found that mothers of older children reported more stress than mothers of younger children. However, they concluded that when other variables are accounted for, there is no relation between stress and the child's age. Lederberg & Golbach (2002) predicted within their study that age did cause greater amounts of stress in mothers as the child got older. But, their results also concluded that age did not affect the amount of stress mothers of hearing impaired children experience, rather that it remained stable during toddlerhood. Although it is seen in this research that when other variables are accounted for, the child's age is not directly related to causing increased stress. It can be concluded that the age of the child still remains an important factor to consider. Professionals should be aware that concern for parents of children who are deaf or hard of hearing of all ages is necessary.

Multiple Disabilities

It is expected that a child with multiple disabilities in addition to hearing loss would cause increased stress levels in parents. Pipp-Siegel et al. (2002) found that additional disabilities is a predictor of stress and can place a parent at high risk for a clinically significant level of stress. They suggested that more research be done to determine if the type and/or number of disabilities would elevate maternal stress levels. These findings would be especially useful in the field of deaf education, where additional disabilities affect some children.

Factors Related to Hearing Loss

Factors related specifically to a child's hearing loss may affect maternal stress. More specifically, examining a child's degree of hearing loss, age of identification, language ability, and mode of communication can be beneficial. Degree of hearing loss has been examined for a link to parental stress (Pipp-Siegel et al., 2002). Pipp-Siegel et al. (2002) found mothers of children with a lesser degree of hearing loss had increased stress compared to those of children with a greater degree of hearing loss, thus revealing that a less degree of hearing loss causes increased parental stress. They reported that hearing mothers of children with a less degree of hearing loss actually experienced more stress caused by impaired interactions between the parent and child. They explain that parent's interpretation of a less severe hearing loss may result in an underestimation of the effect of the hearing loss on the child's functioning. Therefore, parents of children with less degrees of hearing loss may have a false sense of their child's abilities or they may misjudge the effect the hearing loss will have on their child's performance and communication. When children do not meet their parent's expectations or they are seen experiencing difficulties in life, parental stress levels are impacted negatively. Konstantareas & Lampropoulou (1995) did not find that the degree of hearing loss affected stress level, but did identify that age of onset of hearing loss was related to parental stress. Their findings concluded that the younger the child at the age of onset, the greater the maternal stress. It is further explained by Pipp-Siegel et al. (2002) that the difference in findings could be due to the differences in samples. Konstantareas & Lampropoulou (1995) studied Greek mothers whereas Pipp-Siegel et al. (2002) participants were comprised of American mothers.

Language Delays

Yoshinaga-Itano (2003) states that language development is one of the variables that is most notably related to stress in parents of children who are deaf or hard of hearing. Pipp-Siegel et al. (2002) found that as the child's language delay increased so did the maternal stress levels. Thus, higher language development levels cause lower stress levels in parents. They also state that language delays can cause difficulty in mothers interacting with their children; thus, affecting their stress levels. Lederberg & Golbach (2002) state that when a child is an infant, language is not an important part of communication, thus, there is less evidence of the impact of hearing loss. However, as the child grows older and language delays are seen as more prevalent, the parents may experience the impact of the hearing loss which can reveal itself as grief or stress. Hintermair (2006) also shows that a child's communicative competence can have an impact on parental stress in turn affecting the child's development.

Maternal Education, Support, and Income

Other factors that may predict maternal stress are related to the hearing mother rather than the child who has hearing loss. These factors such as maternal education, support, and amount of income may cause an increase in stress. In their study, Pipp-Siegel et al. (2002) found that when variables were statistically controlled, maternal education did not predict stress levels in mothers. They explained that their participants had received early intervention services. Thus, they believed their results were impacted by the extensive parent education and support received through these services which possibly mitigated the negative effects often associated with lower levels of education. Lederberg & Golbach (2002) state that parenting stress may be related to what they call educational support. This educational support includes intervention services. Their findings support Pipp-Siegel et al.'s (2002) thoughts on intervention services

impacting the amount of stress seen in parents of children with a hearing impairment. When assessing family income, Pipp-Siegel et al. (2002) found that mothers with lower income experienced increased stress levels. Quittner et al. (1990) found similar effects of low income negatively affecting parental stress. In addition to income, the intensity of daily parenting hassles can also cause greater stress levels in mothers. These hassles can include difficulty in managing parenting tasks such as bedtime routines and childcare arrangements as well as annoyances that may result from interactions with the child (Pipp-Siegel et al., 2002).

Social Support

Social support plays a crucial role in parent's ability to cope with deafness. Hintermair (2006) describes social resources as the support hearing parents of children who are deaf or hard of hearing deaf children receive from their natural and artificial networks. Natural networks are comprised of partners, children, parents, relatives, friends, and acquaintances. Artificial networks refer to new contacts with other parents in a similar situation such as parents within a parent group, contact with deaf adults, and professionals. The author states that the availability of personal and social resources greatly impacts the parents' coping process.

Increased social support was shown to have a positive effect on stress in families of children with disabilities, specifically those with children who have hearing loss (Lederberg & Golbach, 2002). Lederberg & Golbach (2002) state that having a child who is deaf or hard of hearing could impact maternal social networks in several different ways. Quittner et al. (1990) reported that hearing mothers of hearing impaired children had smaller social networks. Lederberg & Golbach (2002) found that social networks of hearing mothers of children who were deaf were significantly smaller than those of mothers of hearing children. They state that mothers of children who are deaf or hard of hearing may lack the time it takes to establish and

maintain social networks, thus impacting their size. This discrepancy in the size of the social networks was most prevalent during the child's infancy. Hearing mothers of hearing impaired children averaged more than four medical professionals and two education professionals versus mothers of hearing children who had an average of two medical professionals and one education professional (Lederberg & Golbach, 2002).

In addition to the difference in the size of the social network of mothers of hearing impaired children, Lederberg & Golbach (2002) found that these mothers have less contact with family and friends. Instead, mothers in this study stated that professionals, such as health care providers were their identified social support. This differed from hearing parents of hearing children who stated their sources of support as family and friends. Koester & Meadow-Orlans (1990) described that often families of young deaf children rely on professionals within intervention programs to be part of their support network. In addition, parents who have children with similar special needs provide a great amount of social support to these parents. This emotional support along with the encouragement from family, friends, and professionals helps parents accept their present reality, particularly during the child's early years. The authors state that it is this support, especially at the time of diagnosis, that significantly impacts not only the parent's acceptance of the diagnosis, but also their feelings toward training, methods of communication, and other services.

Lederberg & Golbach (2002) point out that despite the differences in size and type of social support both hearing mothers and mothers of children who are deaf or hard of hearing were equally satisfied with their social support. However, it is important to note that they did find that mothers with higher stress levels were less satisfied with their social support. Hearing mothers who reported more stress related to parenting and family issues were shown to have

significantly less satisfaction with their social support and with life in general. This finding is important since satisfaction with social support is vital for coping with stress (Lederberg & Golbach, 2002). Pipp-Siegel et al. (2002) also showed that a mother's perception of the support she receives can impact her stress levels. Lederberg & Golbach (2002) stated that the key predictor of a mother's satisfaction was her feelings about competence. This competence was directly related to how she felt about her ability to parent, and the acceptance of life changes which came from being a parent.

The research discussed shows that there are several factors that impact parental stress levels. These include factors that can be those related to the child, parent, or parent-child interaction. Due to the complexity of stress and its dependence on several variables, the factors influencing parental stress discussed within this paper are not an exhaustive list. Statistical analysis of data gathered using a tool such as the PSI has helped researchers to identify those factors that can place parents and children at high risk for alarming levels of stress. It is necessary for professionals in the field of deaf education to maintain an awareness of these risk factors in order to help mitigate the effects they can have on the parent's well-being and the child's development.

Understanding Parents' Emotions

The complexity of parental stress is in part due to the infinite number of emotions a person can experience after a crisis. Consequently, hearing parents of children who are diagnosed as deaf or hard of hearing experience an extensive range of emotions that can accompany and contribute to parental stress. It is important that professionals are aware that stress as well as a person's innate personality can compromise the psychological state of a mother. This has been shown to affect parent-child interactions and developmental outcomes for

the infant. Parents' perception of themselves and their role as a parent can also change following their child's diagnosis (Koester & Meadow-Orlans, 1990). The diagnosis of a hearing loss can cause an unexpected and rapid change in parents' planned lives. Parents may experience initial shock after the diagnosis that then evolves into other emotions. Some of these emotions can include: denial, disbelief, avoidance, sadness, anxiety, and fear (Koester & Meadow-Orlans, 1990). Ellis (1989) describes parents' experience with hearing loss to include not only stress, but also self-doubt, humiliation, disappointment, loss of control, guilt, panic, and a feeling of being overwhelmed all stemming from the loss of their "perfect" child. Luterman (2008) details parent's sense of inadequacy and the prevalence of feeling overwhelmed in the face of their future. He states that aside from anger caused by unfulfilled expectations, guilt is the most persistent feeling experienced by parents of children with disabilities. Parents also often experience confusion due to the overwhelming amount of information presented to them concerning their child. This in turn can cause feelings of vulnerability. Professionals should be aware of the emotions parents are experiencing, but not become responsible for making them feel better. Instead, professionals should provide acceptance and an understanding environment in which parents feel safe moving through their grief and emotions (Luterman, 2008).

Assistance provided by professionals should support and develop the parent's personal resources. Hintermair (2006) states that personal resources are "psychological characteristics and strengths that help people cope with difficult situations in life." He asserts that these may include a sense of coherence, optimism, self-esteem, and competence in dealing with the child's hearing loss.

Grief Experienced by Parents

Emotions such as anxiety, hopelessness, sadness, fear, and anger are only a few of the many parents of children diagnosed with a hearing loss may experience throughout a lifetime.

Another major emotion hearing parents of children diagnosed with a hearing loss experience is grief. Grief is brought about by a child's diagnosis which then stimulates a change in the parent's planned life as well as that which they had planned for the child. This grief continues throughout a lifetime (Ellis, 1989). Ellis (1989) explains that grief has important biological, intellectual, emotional, behavioral, and spiritual aspects. It is a complex process that is associated with coming to terms with a loss. In the case of a parent of a child who is deaf or hard of hearing, this loss would be that of the idealized child void of a hearing loss (Luterman, 2008). Grief is no longer explained by a simple progression through stages of emotion. It is now seen as a complex progression of emotions with the purpose of coping with loss (Luterman, 2008).

Luterman (2008) describes the grief of families who are managing communication disorders as chronic and episodic. It is no longer viewed as a finite set of emotions parents experience in a sequential manner but rather as a continuous process (Kurtzer-White & Luterman, 2003). Trigger events, which are reminders to the parent of the discrepancies between the parental expectations and the child's true performance, contribute to the incessant emotional stress of the parent (Kurtzer-White & Luterman, 2003; Koester & Meadow-Orlans, 1990). A few examples of these events can include seeing another child talking and playing, birthday parties, Individualized Education Plan (IEP) meetings, teacher conferences, and audiology appointments. Any event that causes a parent to experience a previous stage of grief reemerge would be considered a trigger event (Kurtzer-White & Luterman, 2003; Luterman, 2008).

It is important that professionals are aware of the complex and recurring stages of the grief process as well as the emotions involved (Koester & Meadow-Orlans, 1990). The grief process can affect the parent-child attachment causing it to occur more slowly while the parent grieves (Ellis, 1989). During this time, interaction between the infant and parent is often

compromised. Koester & Meadow-Orlans (1990) point out that this interactive failure can affect the child's developing interpersonal skills in addition to putting the child at risk for further failure during interactions with the parent (Koester & Meadow-Orlans, 1990). By providing support that continues beyond the years of infancy, professionals can attempt to help families lessen the burden emotions and grief have on the parent and child.

The Impact Parental Stress on the Child Who is Deaf or Hard of Hearing

Parental stress can have a negative impact on the child who is deaf or hard of hearing. Hintermair (2006) explains that parents who experience high amounts of stress have children with more socioemotional problems. These problems can include physical symptoms such as headaches and sicknesses, as well as conduct problems which can include tantrums, disobedience, hyperactive behavior, and peer problems. Reviewing the Child Domain of the PSI can provide additional insight into areas where parental stress may affect the child. Quittner et al. (1990) described that the child's adaptability could be impacted by parental stress. In addition, the child's demandingness, distractibility, and mood are also at risk for negative impacts caused by parental stress. Lastly, the level to which the child provides reinforcement to the parent can also be affected.

L. G. Anthony et al. (2005) pointed out that many factors can impact the social skills and behaviors of young children. They examined the relationship existing among parenting stress and the effects it can have on hearing preschoolers' social competence and behavior problems. Their study found that parents with increased stress showed less nurturing behaviors, low expectations, and were stricter with their children. L. G. Anthony et al. (2005) stated that there were links between children's classroom adjustment which included increased internalizing behavior and a negative effect on social behavior. Less affected, but still impacted was the

child's externalizing behaviors. The authors state that these results were seen from the impaired parent-child interactions caused by stress in addition to personal distress. L. G. Anthony et al. (2005) showed a direct and independent connection between parenting stress and classroom functioning and behavior. They concluded that the child's confidence could be compromised, causing difficulties when working in groups. Thus, parental stress puts the child's interactions with others at risk. The evidence from L. G. Anthony et al.'s (2005) study shows that the negative effects of parental stress can go beyond the home and can affect the child's functioning within the classroom. The authors also point out that maladaptive behaviors can increase the stress levels in parents. This information can be applied to parents of deaf or hard of hearing children experiencing stress. It shows that the cycle of parental stress will be continuous and can escalate with stress affecting the parent, then the child, and lastly the child impacting the parent's stress level due to behavior and communication difficulties the child exhibits.

The Impact of Parental Stress on the Family

The diagnosis of a hearing loss can greatly impact the parent and the child diagnosed (Ellis, 1989); however, many families extend well beyond the parent and child. Koester & Meadow-Orlans (1990) state that families contain strong emotional ties and bonds with shared influences. Thus, it is expected that when one family member's development is impacted it is inevitable that other family members will be affected (Koester & Meadow-Orlans, 1990). Ellis (1989) states that the diagnosis of a hearing loss can be viewed as a family crisis. This event affects the family's previously established routines and creates new and unexpected obstacles. The family, not just the parent, must deal with complex emotions and grief. They must reorganize, and accept the changes the child's hearing loss has on previously established expectations. Confronting stereotyping and labeling becomes the reality for families of children

with a hearing loss (Ellis, 1989). Families begin to undergo change, as they are reorganized and begin the process of accepting the additional responsibilities required. Negative behaviors of family members may be a result of the hearing loss, or some individuals could be empowered and become advocates for the diagnosed child (Koester & Meadow-Orlans, 1990).

Koester & Meadow-Orlans (1990) explained that the diagnosis of a child is a highly stressful experience for families. The impact this diagnosis has on the family is greatly dependent on how they cope with the information (Koester & Meadow-Orlans, 1990). Families may react differently due to previous experience or knowledge of the deafness. The reaction of the family to the diagnosis is similar to that of what was described for a parent. Koester & Meadow-Orlans (1990) describe that psychological, familial, and social factors can impact how a family copes with the stress that accompanies the diagnosis of a hearing disorder. Professionals must recognize that entire family units are affected by the diagnosis of a hearing loss. Support services should be provided to not only the parents but other members of the family as well. Resources can mitigate the negative effects of the life changing events brought about by a hearing loss (Koester & Meadow-Orlans, 1990).

The Professional's Role in Addressing Parental Stress

The role of professionals in the field of deaf education has been evolving as technology swiftly evolves. UNHS has changed the way in which parents learn about their child's hearing loss in addition to the role of professionals who interact with parents. Professionals in the field of deaf education are part of the support for parents and often continue to be throughout the child's life. Koester & Meadow-Orlans (1990) described that parents of children who are deaf or hard of hearing considered professionals within intervention programs to be sources of support. This means that professionals need to understand the emotions parents experience and the impact

it has on the child. This knowledge will help them to provide appropriate support services to parents of hearing impaired children, especially those experiencing high levels of parental stress.

Hintermair (2006) describes the critical importance of recognizing which factors influence parental stress. He asserts that it is imperative to identify those which reduce or maintain stability in stress levels of parents of hearing impaired children. This knowledge is crucial considering the negative impact parental stress can have on the parent, child development, and parent-child interaction (Hintermair, 2006). Several factors affecting parental stress have been discussed within this paper. It is important that professionals recognize these risk-factors and their ability to impact a child's development. Knowledge about the effect of variables such as the degree of hearing loss, additional disabilities, and language development, can help them to provide the adequate resources parents need when experiencing increased stress.

The role of a professional within the context of counseling is to provide the parent with specific and accurate information about their child as well as being an active listener. They should show interest, concern, and be available to answer questions the parents may have (Ellis, 1989). It is essential that the professional understands that grief is a natural part of coping with the diagnosis of a hearing loss. Within this understanding should be empathy and the realization that time is needed as the parent experiences different emotions and grieves. In addition, an understanding of the trigger events that cause parents to re-experience grief is helpful to prepare parents and themselves for times of high stress (Luterman, 2008). Professionals can help parents cope with the child's hearing loss and work through difficult times as they occur throughout the child's life.

Ellis (1989) provides tips on helping parents understand the grief process. Within these tips, he stresses the importance of communication of the natural feelings parents are experiencing. He points out that helping parents understand the process can help them understand their emotions and work through them. He states that it is important to also include the child in the grieving process, since they are experiencing emotions as well. Professionals in the field of deaf education must be aware that psychotherapy and counseling may be needed to deal with depression, anxiety and other problems that can arise as a result of a child diagnosed with a hearing impairment. Pipp-Siegel et al. (2002) state that professionals working with families of children who are deaf or hard of hearing should be cognizant of the signs of high stress and know ways to assist the family. This can include providing direct assistance or making referrals to an appropriate professional (Ellis, 1989).

Hintermair (2006) describes the need for professionals to help empower parents of children who are deaf or hard of hearing. As research shows, parents' stress levels are influenced by their social support (Hintermair, 2006; Lederberg & Golbach, 2002; Pipp-Siegel et al., 2002). Ellis (1989) also points out the importance of helping the parent by providing resources that will help them establish a support system. Hintermair (2006) suggests that natural networks of families be made stronger as well as expanded. These networks can begin to include other parents of deaf and hard of hearing children (Hintermair, 2006). This contact can help to counteract the feelings of isolation and loneliness (Ellis, 1989). Professionals must reassure parents that they are acceptable people and continue to encourage and facilitate communication with others in similar situations.

Hintermair (2006) states that families with children who are deaf that were diagnosed early and received good support revealed stress levels equal to hearing children. He points out

that early diagnosis and intervention appear to be the best prevention strategy against stress for parents of children who are deaf and hard of hearing. The same conclusion can be made when looking at the research discussed within this paper. The results show the importance of early intervention services in minimizing stress which creates healthier parents, thus impacting the child's development (Lederberg & Golbach, 2002; Pipp-Siegel et al., 2002; Quittner et al., 1990). Early intervention programs should be family-centered and include services such as group counseling offered to the parents and other family members in addition to parent education. Professionals should be empathetic, open, and caring during interactions with the family. Moeller (2000) showed that children enrolled in early intervention services who had high levels of family involvement obtained better language scores. It is important for professionals to maintain and understand that early detection and intervention are crucial steps in the successful management of a child's hearing impairment.

Conclusion

The importance of early identification has been recognized as UNHS is mandated throughout the United States. The result is younger children being identified with hearing loss and in turn enrolled into early intervention services (Yoshinaga-Itano, 2003). As the age of diagnosis gets younger, coping with an unexpected hearing loss can be more challenging for parents. They are thrust into a deeply emotional experience shortly after their child's birth and these complex emotions continue from diagnosis throughout the child's life. Grief is no longer seen as a finite process that is worked through, but rather a chronic one that is relived when life events trigger the parent to re-experience their loss. A child diagnosed with a hearing loss and the emotions including parental stress can have a significant negative impact on the parent, the child's socioemotional development, and the parent-child interaction. Professionals need to

understand the factors that contribute to increased stress in parents which include but are not limited to having children with: lesser degrees of hearing loss, additional disabilities, and language delays. In addition, lower income and a lack of support and resources can also impact parental stress negatively. It is important that professionals recognize the need for family-centered intervention programs that include counseling and support services, empathetic and caring professionals, parent education, and one which helps foster relationships between parents. Increasing the support of the parent will have a positive effect on their health and well-being. This in turn will impact the parent-child interaction and lead to a healthier child.

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